

REMARKS

Claims 1-6, 8-19, 21-26, and 28-30 were rejected as being anticipated by Wolff (US 6886035 B2), Flanagan et al. (US 6243737 B1), and in further view of Bowman-Amuah (US 6571282). Regarding the rejections under 35 U.S.C. 103(a) Applicants assert that the Examiner is assembling a variety of unrelated prior art elements in a manner that is not disclosed or suggested by the prior art and would not be obvious to one of skill in the art with and requires impermissible hindsight. Applicants therefore submit that the claimed invention is not anticipated by the prior art.

Appellants arguments will focus on the elements of independent claim 1 with the understanding that the same arguments apply to the elements delineated in the other independent claims.

Applicants assert that the prior art does not anticipate “a GUI generation module configured to examine user credentials and generate web-based graphical user interfaces to view data replications on multiple network nodes and enable a user to initiate modification or deletion of data on a selected node.” The references cited disclose several elements independently, such as a GUI generator, and graphical interface. However there is no motivation to combine. The GUI mentioned in the prior art does not disclose “a GUI generation module configured to ... generate web-based graphical user interfaces to view data replications on multiple network nodes and enable a user to initiate modification or deletion of data on a selected node”.

Applicants assert that the GUI in Wolff does not include the functionality delineated in the claims and is clearly meant to be used outside of the scope of a multiple node data replication environment such as a grid computing environment. Along similar lines, a web based graphical user interface is mentioned by Bowman-Amuah, but the

interface in the prior art is intended to apply to database relationships, not replicated data in a grid computing environment. Applicants assert that combining references intended for different purposes requires impermissible hindsight.

Applicants also assert that the prior art does not collectively anticipate user-controlled data replication operations. Specifically, the prior art does not anticipate “a replication management module configured to conduct data replication operations including directory-based replication operations based on user input.” While data replication is disclosed, the data operations disclosed in Wolff are directed at creating backups when a node first appears, fails, or fails back. The present invention is targeted at a completely different context, enabling users to determine replications to improve data and application locality, not backup files. There is certainly no motivation to alter an automatic process and accept user-defined locations in algorithms for backing up data.

Similarly, there is no motivation in the prior art to create a “replication management module further configured to invoke generation of at least one graphical user interface, the at least one graphical user interface configured to facilitate invocation of the data replication operations by a user.” This clause was rejected as being anticipated by Wolff in view of Flanagan. Flanagan, however, discloses a GUI only. There is no indication or motivation that a GUI interface would be combined with replication management tools. Functional invocation of graphical interfaces to manipulate files in a grid network would not have been readily apparent to one skilled in the art.

More generally, Applicants assert that the Bowman-Amuah reference does not fit the context of the present invention. Bowman-Amuah is directed towards a database transaction between a client and a server. In the prior art, a user can generate a client

view of a database on a server using a wysiwyg interface.

The present invention is completely different. In a grid computing environment, there is no direct client-server relationship, since computations and files are distributed throughout the network. Additionally, the present invention is not generating a database view. Instead, the present invention is generating a network topography of data replications.

Although Bowman-Amuah does disclose “examining user credentials,” the scope of those credentials is limited to database examination, manipulation of data replications on multiple network nodes such as a grid computing environment. Bowman is very limited in scope and is not an appropriate reference for comparing to a system that manages data replications on multiple network nodes.

Furthermore, in re Ratti, 270 F.2d 810, if the proposed modification would change the principle of operation of the prior art being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. This is a clear cut case where grid computing would fundamentally change the reporting capabilities and client-server processes of Bowman-Amuah depicted in Figures 116 and 124.

Generating a “web-based graphical user interface” was rejected as being anticipated by Bowman-Amuah. However, Bowman-Amuah fails to disclose any motivation for creating a user interface for viewing and editing data replications across a network.

When an “applet” type configuration is introduced by Bowman-Amuah that combines computing on server-client setup, Bowman admits “Web-based user interfaces do not support such interfaces well...” (Column 29) This would suggest against using a

web interface to control assets on a network. Furthermore, the client-server environment discussed (see Figure 116) is far from the grid computing environment discussed in the present invention.

In regards to Wolff, the examiner has failed to make a prima facie case for obviousness. The examiner has cited a “configuration database replicator module 148” as grounds for rejecting a replication management module. As described by Wolff, this replicator module is called “when a node first appears on the network during a fail-over after a node failure, or when a node fails back.” The point of the present invention is to enable a user to choose when and where data replications occur. An automatic duplicator that always duplicates algorithmically undermines this very purpose of the invention.

In more general terms, there is little to no motivation to combine three separate references that deal with different computing environments. Bowman-Amuah includes a client that issues batch requests to a server, Wolff includes a replicator module that duplicates files regardless of user input, and Flanagan introduces a GUI independent of a grid computing environment. The disparities between the different pieces of prior art indicate no motivation for combination. The references are independent and do not suggest each other. Furthermore, the fact that the examiner had to combine three relatively unrelated references is a good indication that the present invention was not anticipated.

CONCLUSION

Applicants assert that Midgeley, Wolff, Bowman-Amuah, and Flanagan do not disclose all of the limitations included in the presented claims. Applicants therefore assert that each of the independent claims is in condition for allowance and respectfully request prompt allowance of the pending claims. In the event that the Examiner finds any remaining impediments to the prompt allowance of any of these claims which could be clarified in a telephone conference, the Examiner is respectfully urged to initiate the same with the undersigned.

Respectfully submitted,

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